

**School of Medicine, Nazarbayev University  
Master of Public Health Program**

**Factors associated with mental health and wellbeing  
of adult people living with HIV in Kazakhstan**

Master of Public Health Integrating Experience  
Project Professional Publication Framework by  
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**Astana, 2024**

## **Acknowledgements**

We thank the Kazakhstan Union of People Living with HIV for their support in recruiting participants and conducting this study.

## **Abstract**

### **Objectives**

Our study aims to explore the association of a range of demographic, physical and psychosocial factors with positive mental health and mental illnesses, in adults living with HIV in Kazakhstan.

### **Methods**

To conduct the current cross-sectional study, the Qualtrics online survey platform was utilized. We collected data from January to February 2024. The study included 170 individuals (18 years and older) living with HIV in Kazakhstan who agreed to participate by signing electronic informed consent. The online survey consisted of overall 48 questions and four parts: (1) Socio-demographic information ; (2) General health information, (3) Mental health , and (4) HIV related stigma.

### **Results**

Only 33.53% of adults living with HIV are flourishing and have no mental illness. People in flourishing without mental illness group receive more social support. People who rated their physical functioning as mostly able and complete were least likely to fall into the flourishing with mental illness group. People who see themselves as not flourishing or languishing in life, can be more at risk for depression and anxiety due to lack of flourishing. Mental illness without flourishing (languishing) group accounted for 20.59% of the sample. People older than 44 years old are less likely to fall into this group. People who have a good assessment of their ability to perform daily physical activity are less likely to fall into this group. This group presented a

high association with internal stigma. People living with HIV falling into this group receive less social support.

### **Conclusions**

Our study demonstrated that a third of the present sample have positive mental health and are flourishing, and this was associated with high social support. People with more advanced levels of physical functioning were less likely to flourish in the presence of mental illness. Insufficient social support, internal stigma, difficulty in performing daily physical activities and younger age have an significant association with anxiety and depression without flourishing. Continued efforts are recommended on increasing public awareness of HIV infection in Kazakhstan, with a special focus on reducing discrimination in various spheres of life, which affects internal stigmatization and mental health of individuals with HIV in Kazakhstan.

### **Practice implications**

It is recommended to increase availability of social services and support for individuals with HIV, as this could benefit their mental health and well-being.

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## **Abbreviations**

<b>ART</b>	Antiretroviral treatment
<b>FS</b>	Flourishing Scale
<b>GAD-2</b>	Generalized Anxiety Disorder 2-item
<b>HIV</b>	Human immunodeficiency virus
<b>IA-RSS</b>	Internalized AIDS-related stigma scale
<b>NU IREC</b>	Nazarbayev University Institutional Research Ethics Committee
<b>PHQ-2</b>	Patient Health Questionnaire-2

## **Introduction**

To date, human immunodeficiency virus (HIV) represents a huge challenge to global health. (Bilibayeva et al., 2023). While the global HIV pandemic remains stable, in Central Asian countries, including Kazakhstan, new HIV cases are actively increasing (Mussina, Abbay, et al., 2023). According to UNAIDS estimates there are 35,000 individuals who are HIV positive in Kazakhstan (Mussina et al., 2023). The health-related quality of life of HIV-positive people is worse than that of the general population, which is associated with poor mental and physical health conditions (Skogen et al., 2023). Important elements of care and support for HIV-positive individuals include improvements in well-being and also in standard of living (Cooper et al., 2017). There are quite insufficient levels of mental health services in Kazakhstan (World Health Organization, 2021) and it still lacks national programs to enhance and support mental health of individuals living with HIV. More studies are warranted to create an evidence base for establishing comprehensive programs for HIV-positive adults and to determine their mental health needs.

To date, mental health research on HIV-positive populations has largely focused on mental illness. Moreover, compared to the general population, HIV-positive people more frequently suffer from symptoms of anxiety and depression (Heissel et al., 2019). Previous analyses have reported an association between the presence of depression and poor adherence to treatment, and depression has a negative impact on recovery among HIV-positive adults, which is a challenge for public health globally (Andini et al., 2019). Furthermore, stigmatization associated with HIV is a major source of stress and should be addressed along with other key factors in social health determinants studies (Hatzenbuehler et al., 2013). HIV-positive people living in Kazakhstan often face stigma not only from society, but also tend to

have internalized stigma linked to their HIV-positive condition (Amanzholov et al., 2022). In general, high levels of external and internal stigmatization and discrimination, as well as fear of disclosing HIV status, correlate with a greater propensity for mental illness in HIV-positive people (Yi et al., 2015).

Mental health in many previous studies is described by the state where a person does not suffer from any mental illnesses (Westerhof & Keyes, 2010). However, as defined by the World Health Organization, mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (World Health Organization, 2004). Despite the predominance of research examining mental health from a pathological perspective, there is a rising recent trend to study positive mental health and flourishing (Ross, 2016). Whereas having positive mental health and well-being are described as a state of balance among subjective well-being and full functioning (Huppert, 2005), flourishing is defined as a process of actively living in accordance with personal beliefs, visions of the future, and responsibility as an individual, within the community perspective to which one belongs (Willen et al., 2021).

According to a numerous studies in healthy populations, higher positive mental health is positively correlated with longer lifespan and greater physical health (Diener & Chan, 2011; Lyons et al., 2016; Nobre et al., 2022). Despite the lack of research examining important dimensions of positive mental health such as a sense of commitment and optimism in HIV-positive individuals, there is evidence that optimism correlates with slower HIV progression and better response to treatment (Ironson, 2008). There is also evidence that optimism is linked to improved well-being and reduced perceptions of HIV-related stigma in HIV-positive

individuals (Ammirati et al., 2015). In terms of factors contributing to positive mental health and general wellbeing, practical or material support, family support and a sense of belonging or companionship are correlated with higher levels of flourishing, while HIV-related internalized stigma was identified as a main obstacle to flourishing (Lyons et al., 2016).

Furthermore, according to the recently developed theoretical model of two continuum, mental health and mental illness are connected but separate concepts: “Mental health is not merely the absence of mental illness; it is not simply the presence of high levels of subjective wellbeing”(Keyes,2002). Therefore, the existence of mental illness cannot preclude flourishing, which implies the existence of well-being emotionally, socially, and psychologically; while people who do not have symptoms of mental illness may also experience languishing, in low levels of well-being. Research that relies on a two-continuum model supports dividing people into flourishing, moderate mental health, and languishing without regard to the existence or lack of a mental illness diagnosis (Keyes, 2005). Independent socio-demographic characteristics like sex, age, level of education and occupational status can influence mental health status (Keyes, 2002). However, numerous international studies have different data on this point (Góngora & Solano, 2017). In terms of gender, there is evidence that in the USA and Italy men have better mental health (Keyes, 2005; Petrillo et al., 2015), as in the Netherlands do women (Westerhof & Keyes, 2010), there is no gender difference in Canada (Gilmour, 2014). Moreover, with regard to age, in Poland high mental health levels were found in the young population (Karaś et al., 2014), while in the USA and Canada (Keyes, 2005; Gilmour, 2014) older adults showed higher mental health scores, but there is evidence of no meaningful differences across age groups (Westerhof & Keyes, 2010). In addition, mental health and educational attainment have a positive correlation, while no association was found with employment status (Góngora & Solano, 2017).

The current lack of studies into positive mental health and flourishing in HIV-positive people in Kazakhstan suggests that health professionals and policy makers lack sufficient evidence to develop pathways to promote wellbeing apart from preventing mental illness. The purpose of this study is to investigate the relation of a range of demographic, physical health and psychosocial factors with positive mental health and mental health illnesses (such as depression and anxiety) in adults with HIV in Kazakhstan. The results of the present study may inform future public health interventions aimed not just at treatment or prevention mental illness, but also at enhancing the positive mental health and wellbeing of HIV-positive people.

## **Materials and methods**

### **Study participants and sample collection**

The present cross-sectional study was performed using the Qualtrics platform for online surveys. The collection of data was carried out between January and February 2024. The study included 170 individuals (18 years and older) living with HIV in Kazakhstan who agreed to participate by signing electronic informed consent. Participants enrolled through purposive sampling method. The main site for recruitment of survey participants was the “Kazakhstan Union of People Living with HIV”. The staff of the Union distributed an electronic invitation with a link to the survey through social networks of the organisation in different regions of Kazakhstan.

### **Study instruments**

This online survey consisted of overall 48 questions and four parts: (1) Socio-demographic information (age, sex, gender identity, ethnicity, education, region, relationships, employment

status, financial satisfaction, concern about living conditions); (2) General health information (duration of HIV diagnosis, other chronic diseases, health status, physical functioning, adherence and access to antiretroviral treatment (ART), reasons for ART refusal (if any), number of missed ART days in the last month, satisfaction with healthcare services provided by the medical staff at the HIV Prevention Center, support from any organization), (3) Mental health (positive mental health measured by Flourishing Scale (Diener et al., 2009), ability to cope with stress, depressive and anxiety symptoms measured by 2-item screening tools (Patient Health Questionnaire-2 (PHQ-2) and Generalized Anxiety Disorder-2 (GAD-2)), and (4) HIV related stigma (Öztür et al., 2020; Kalichman et al., 2009) and social support (Santiago et al., 2023).

The original English versions of the standardized questionnaires were translated using the forward and back translation method into Kazakh and Russian languages (Diener et al., 2009; Kroenke et al., 2003; Kroenke et al., 2007; Linda, 2013; Kalichman et al., 2009; Santiago et al., 2023). To ensure the instrument's validity and reliability, the translation was adapted culturally. The questionnaire was pre-tested and adjusted for clarity and comprehension on a small group of HIV-positive adults; responses of pre-tested subjects were excluded from the analysis.

#### *Flourishing Scale (FS)*

A short, eight-item measure intended to assess individual's positive functioning in particular being optimistic, having positive relationships, sense of self-worth, purpose of life and meaning (Diener et al., 2009). Every item is scored on a 7-point scale from 1=strongly disagree to 7=strongly agree to show the degree to which respondents agreed or disagreed with each statement of the item. A total score is calculated from the scale, with high scores indicating a

greater likelihood of psychological well-being. Some examples of FS items: "I lead a purposeful and meaningful life" and "I am optimistic about my future". For the Malaysian version of the FS questionnaire, an internal consistency of Cronbach's alpha coefficient = 0.93, while the Italian version had 0.88. (Seok et al., 2022; Di Fabio & Kenny, 2018). The internal consistency for the current study is 0.87.

#### *The Patient Health Questionnaire-2 (PHQ-2)*

The PHQ-2 is a short measure to evaluate the incidence of depression and anhedonia in the last two weeks (Kroenke et al., 2003). Both items were presented in the context of how often the following problems had bothered in the last two weeks: "Little interest or pleasure in doing things" and "Feeling down, depressed or hopeless". Respondents ranked the incidence of decreased interest and feeling depressed in the last two weeks using a four-point scale (from 0 = not at all to 3 = almost every day). The total scale score varied between 0 and 6 points. Having a total score  $\geq 3$  defined the presence of major depressive disorder (Kroenke et al., 2003). In the Spanish version of the scale had the Cronbach Alpha coefficient 0.71 (Scoppetta et al., 2021) and for the Hong Kong version it was 0.76 (Yu et al., 2011). In our study, the Cronbach's Alpha coefficient equaled 0.79.

#### *Generalized Anxiety Disorder 2-item (GAD-2),*

The GAD-2 represents the first two questions of the GAD-7 scale, and is a short version of it. This shortened scale is used the primary diagnosis of anxiety disorder (Kroenke et al., 2007). Both questions are presented in the context of how often the following problems bothered you in the last 2 weeks: "Feeling nervous, anxious or worried" and "Not being able to stop or control worrying". Respondents rated the incidence of experiencing nervousness and inability to control emotions during the last two weeks using a four-point scale (from 0 = not at all to 3 =

almost every day). Overall scores varied between 0 and 6, where a GAD-2  $\geq 3$  score was defined as an acceptable boundary for detecting clinically relevant symptoms of anxiety. By using a cutoff of 3 points, the GAD-2 shows 86% sensitivity and 83% specificity for the diagnosis of anxiety disorder. Chinese version of the scale had a Cronbach's Alpha coefficient of 0.80 (Luo et al., 2019) and the Finnish version had a coefficient of 0.81 (Kujanpää et al., 2014), in our study this coefficient was 0.83.

### *HIV-related Stigma*

The experience of public stigma was measured by the two following items: "Have you been treated differently after disclosing your HIV status to friends and family", and "You have not disclosed your HIV status to some people out of fear of negative consequences" (Linda, 2013; Atuyambe et al., 2014). Responses were presented with two options No=0 and Yes=1. It was analyzed as continuous score summing the scores for both items. Total scores varied between 0 and 2, where the greater score indicated the higher the level of public stigma.

### *The Internalized AIDS-related stigma scale (IA-RSS)*

To measure internalized HIV-related stigma, we applied the IA-RSS scale (Kalichman et al., 2009). This scale has six dichotomous items, with responses represented by "Agree=1" and "Disagree=0". For example: "I feel guilty that I am HIV positive". The scale summarizes into one total score. Greater degree of internalizing stigma is identifiable by higher total scores indicate. The reliability coefficient in earlier research was 0.76 (Rael & Hampanda, 2016), while in our study,  $\alpha$  is 0.72.

### *Social Support Scale*

The 4-item *Social Support Scale* (Peeters et al., 1995) was utilized to assess emotional (“There are people in my life who pay attention to my feelings and problems”), appraisal (“There are people in my life who appreciate what I do”), instrumental (“There are people in my life who I can get help from if I need it”) and informational support (“There are people in my life who I can talk to about how to handle things”). A five-item scale (0 = strongly disagree; 1 = disagree; 2 = neutral; 3 = agree; 4 = strongly agree) was utilized to assess responses to these questions. Total scores varied between 0 and 16, where higher scores showed greater social support. This scale showed a high reliability coefficient = 0.80 in the original study (Peeters et al., 1995), in this study the coefficient is 0.88.

### **Study variables**

As for the independent variables, these were socio-demographic characteristics (sex, gender identity, age, ethnicity, education level, region and area of residence, relationship status, level of financial satisfaction, and concerns about living situation), general health status of respondents (duration of HIV status, presence of other chronic diseases, personal assessment of health and physical functioning, adherence to and access to antiretroviral therapy), stigma and social support (assessment of public and internalized stigma associated with HIV status and assessment of emotional, value, material and informational support).

The baseline variable of complete mental health was composed from positive mental health and mental illness based on a dual continuum model. For positive mental health, participants who scored above median on the flourishing scale ( $>48$ ) were categorized as flourishing, where 1=Yes; 0=No. Mental illness was defined if participants screened positive on PHQ-2 or GAD-2 scales (score  $\geq 3$ ), indicating possible cases of major depression or generalized anxiety disorder. These three dichotomous variables were then combined in one outcome variable of complete mental health with four categories: (1) flourishing without mental illness, (2) flourishing with mental illness, (3) not flourishing but no mental illness, and (4) mental illness without flourishing.

### **Ethical considerations**

Nazarbayev University Institutional Research Ethics Committee approved the study design, questionnaire content, recruitment letters and brochures (NU IREC #811/27112023). Before the survey began, all respondents were given an online informed consent form describing the aim and procedure of study, its voluntary nature and measures to protect data confidentiality, and contact details for the researchers to clarify additional questions. No personal information (personal identifiers, IP addresses, location) was available to the researchers before, during, or after the study. All details of the study and the rights of participants were provided in the participant recruitment letter.

### **Statistical analysis**

STATA/SE 18.0 program was used to conduct data analysis. Regarding descriptive analysis, for categorical variables, frequencies and proportions were utilized, and for continuous variables and mean values with standard deviations were used. The associations of the outcome variable of complete mental health with independent variables were examined using

bivariate tests (Chi-squared test/ Fisher exact test and ANOVA/ Kruskal-Wallis one-way). We used  $p\text{-value} < 0.25$  for bivariate analyses in order not to miss any significant associations due to small sample size. Using the stepwise regression approach, significantly associated variables from bivariate analyses were entered into three separate multivariate multinomial logistic regression models to check the relationship between the outcome variable and three groups of independent characteristics: (1) sociodemographic characteristics, (2) physical health, and (3) stigma and social support. Final multivariate multinomial logistic regression model included significant variables from three preceding models. In multivariate analysis, we utilized a significance level of  $p < 0.05$ . A likelihood ratio test as well as a deviation goodness-of-fit test were performed to establish the final model. The model was also tested for linearity with a continuous exposure variable. Additional AIC/BIC statistics were used to compare the different models.

## Results

**Table 1.** Sociodemographic characteristics of respondents (n = 170)

<b>Variables</b>	<b>n</b>	<b>%</b>
<b>Sex at birth</b>		
Female	107	64.85
Male	58	35.15
<b>Gender identity</b>		
Female	110	65.87
Male	52	31.14
Other	5	2.99
<b>Age</b>		
18-34	44	25.88
35-44	69	40.59
45-64	57	33.53
<b>Ethnicity</b>		
Kazakh	59	35.12
Russian	91	54.17
Other	18	10.71
<b>Education</b>		

No education/Primary Education	14	8.24
Secondary education/Secondary-special education	113	66.47
Bachelor degree/Postgraduate degree	43	25.29
<b>Residence region</b>		
Astana and Akmola region	33	20.62
Almaty and Almaty region	33	20.62
Karaganda region	38	23.75
Northern/Western/Southern/Eastern regions	56	35.00
<b>Area of living</b>		
Urban area	153	90.00
Suburban area	6	3.53
Rural area	6	3.53
Other	5	2.94
<b>Relationship status</b>		
Yes	135	56.47
No	64	37.65
Prefer not to answer	10	5.88
<b>Employment status</b>		
Employed	135	79.41
Not employed	35	20.59
<b>Financial satisfaction</b>		
Sufficient	47	27.65
Barely enough	48	28.24
Insufficient	75	44.12
<b>Concerns about your current living situation</b>		
No	52	30.37
Yes	117	69.23

Table 1 summarizes the descriptive data on sociodemographic variables. The sample consisted of 170 individuals (18 years and older) living with HIV; 64.8% of participants reported their biological sex as female and 35.2% as male. 65.9% identified themselves as women, 31.1% as men, while almost 3% preferred not to indicate their gender identity. The most represented age group was 35 to 44 years (40.59%), followed by 45 to 64 years (33.53%) and the least represented group was 18 to 34 years (25.88%). The most represented ethnic group were

Russian (54.17%) and Kazakh (35.12%). About 66.47% of people living with HIV had secondary/secondary special education level and most of them (90.00%) lived in urban areas. Regions of residence were distributed almost equally for Astana and Akmola region (20.62%), Almaty and Almaty region (20.62%) and Karaganda region (23.75%), but the combined category for the remaining regions is represented by the largest (35%). Almost more than half of respondents are currently in a relationship (56.47%), and almost 80% have employment. 44.12% of respondents consider their financial situation as unsatisfactory and 69.23% have concerns about their current living situation.

**Table 2.** General health information (n=170)

<b>Variable</b>	<b>n (%) or Mean ± SD</b>
<b>Duration of having HIV</b>	
Less than 3 years	27 (17.65)
From 3 to 10 years	58 (37.91)
More than 10 years	68 (44.44)
<b>Presence of chronic diseases</b>	
Yes	88 (56.05)
No	69 (43.95)
<b>Perceived Health Status</b>	
Poor	16 (10.26)
Fair	67 (42.95)
Good	49 (31.41)
Very Good	24 (15.38)
<b>Ability to carry out every day physical activities (walking, climbing stairs, etc.)</b>	
A little	13 (8.33)
Moderately	37 (23.72)
Mostly	23 (14.74)
Completely	83 (53.21)
<b>Receiving HIV treatment</b>	
Yes	148 (95.48)
No	7 (4.52)
<b>Reason for ARV treatment failure</b>	
I do not have any problem	109 (90.83)
I can not tolerate the side effects of drugs	4 (3.33)
Other	7 (5.83)

<b>Access to ARV therapy in the last 12 months</b>	
Good	129 (84.31)
Fair	24 (59.69)
<b>Number of days of missed treatment in the last month</b>	
<b>0</b>	57 (41.01)
<b>1-3</b>	63 (45.32)
<b>4-8</b>	9 (6.47)
<b>9 or more</b>	10 (π)
<b>Level of satisfaction with the treatment services</b>	
Completely satisfied	67 (43.23)
Satisfied/Neutral	79 (50.97)
Dissatisfied	9 (5.81)
<b>Receiving any services from one of the organizations supporting people living with HIV in Kazakhstan</b>	
Yes	106 (68.83)
No	42 (27.27 )
Other	6 (3.90)

Table 2 presents information on general health of the respondents. More than 44.44% of respondents have HIV for more than 10 years, 37.91% for 3 to 10 years and only 17.65% for less than 3 years. Approximately 56% of the respondents have other chronic diseases compared to 44% of the respondents without other chronic diseases. The perceived health status of the respondents was distributed as follows in the sample: Poor (10.26%), Fair (42.95%), Good (31.41%), Very Good (15.38%). Just over half of respondents (53.21%) are able to completely fulfill their daily physical activities. Also 95% of the respondents are taking HIV treatment, 90% of them have no problem in taking treatment. 84.31% rated access to ART as good in the last 12 months and only 5.81% were dissatisfied with treatment services and almost 69% receive additional services from organizations supporting people living with HIV. 41% of respondents had not missed treatment in the last 30 days compared to 45.32% who missed 1 to 3 days, 6.47% 4 to 8 days and 7.19% 9 or more days.

**Tables 3.** Scales

Scale [range]	n	Mean (SD)	Median	Range	Cronbach's alpha
Flourishing scale	153	46.99 (±6.19)	48	27 - 56	0.87
Social Support Scale	148	12.30 (± 2.73)	12	3 - 16	0.88
PHQ-2	150	1.82 (± 1.66)	2	0 - 6	0.79
GAD-2	151	1.90 (± 1.62)	±1.62	0 - 6	0.83
The Internalized AIDS-related stigma	149	2.57 (± 1.89)	±1.90	0 - 6	0.72
Public stigma	142	1.30 (±.63)	.63	0 - 2	0.31

Finally, the highest number of respondents were categorized as Flourishing without mental illness (33.53%), compared to 15.29% for Flourishing with mental illness, 30.59% for Not flourishing but no mental illness, and 20.59% for Mental illness without flourishing. The mean Social Support Scale was 12.30 (SD=2.73), mean PHQ-2 was 1.82 (SD=1.66), mean GAD-2 was 1.90 (SD= 1.62), mean The Internalized AIDS-related stigma was 2.57 (SD=1.89) and mean Public stigma was 1.30 (SD=.63).

**Tables 4.** Distribution of the complete mental health of adults with HIV in Kazakhstan by sociodemographic characteristics, physical health characteristics, stigma and social support (n=170)

Independent variables	Complete Mental Health				p-value
	Flourishing without mental illness n=57 (33.53%)	Flourishing with mental illness n=26 (15.29%)	Not flourishing but no mental illness n=52 (30.59%)	Mental illness without flourishing n=35 (20.59%)	
<b>Sex at birth</b>					0.040 <sup>a**</sup>
Female	39 (36.45)	18 (16.82)	35 (72.92)	15 (32.71)	
Male	18 (31.03)	8 (13.79)	13 (22.41)	19 (32.76)	
<b>Gender identity</b>					0.15 <sup>b*</sup>
Female	38 (34.55)	19 (17.27)	36 (32.73)	17 (15.45)	
Male	17 (32.69)	6 (11.54)	12 (23.08)	17 (32.69)	
Other	1 (20.00)	0 (0.00)	3 (60.00)	1 (20.00)	
<b>Differences in gender identity</b>					

<b>compared to sex at birth</b>					
No	55 (36.18)	23 (15.13)	44 (28.95)	30 (19.74)	0.034 <sup>b**</sup>
Yes	0 (0.00)	2 (40.00)	0 (0.00)	3 (60.00)	
Other	1 (20.00)	0 (0.00)	3 (60.00)	1 (20.00)	
<b>Age</b>					
18-34	12 (27.27)	7 (15.91)	11 (25.00)	14 (31.82)	0.288 <sup>a</sup>
35-44	23 (33.33)	10 (14.49)	21 (30.43)	15 (21.74)	
45-64	22 (38.60)	9 (15.79)	20 (35.09)	6 (10.53)	
<b>Ethnicity</b>					
Russian	27 (29.67)	13 (14.29)	34 (37.36)	17 (18.68)	0.214 <sup>b*</sup>
Kazakh	21 (35.59)	12 (20.34)	11 (18.64)	15 (25.42)	
Other	7 (38.89)	1 (5.56)	7 (38.89)	3 (16.67)	
<b>Education</b>					
Lower level	5 (35.71)	3 (21.43)	3 (21.43)	3 (21.43)	0.373 <sup>b</sup>
Middle level	34 (30.09)	17 (15.04)	41 (36.28)	21 (18.58)	
High level	18 (31.58)	6 (23.08)	8 (15.38)	11 (31.43)	
<b>Residence region</b>					
Astana/Akmola region	8 (24.24)	4 (12.12)	13 (39.39)	8 (24.24)	0.614 <sup>b</sup>
Almaty/Almaty region	9 (27.27)	5 (15.15)	9 (27.27)	10 (30.30)	
Karaganda region	16 (42.11)	7 (18.42)	8 (21.05)	7 (18.42)	
Other	22 (39.29)	9 (16.07)	16 (28.57)	9 (16.07)	
<b>Area of living</b>					
Urban area	52 (33.99)	24 (15.69)	47 (30.72)	30 (19.61)	0.458 <sup>b</sup>
Rural area	3 (50.00)	1 (16.67)	2 (33.33)	0 (0.00)	
Other	2 (18.18)	1 (9.09)	3 (27.27)	5 (45.45)	
<b>Relationship status</b>					
Yes	30 (31.25)	16 (16.67)	32 (33.33)	18 (18.75)	0.736 <sup>b</sup>
No	24 (37.50)	8 (12.50)	16 (25.00)	16 (25.00)	
Prefer not to answer	3 (30.00)	2 (20.00)	4 (40.00)	1 (10.00)	
<b>Employment status</b>					
Employed	46 (34.07)	20 (14.81)	46 (34.07)	23 (17.04)	0.079 <sup>a*</sup>
Not employed	11 (31.43)	6 (17.14)	6 (17.14)	12 (34.29)	
<b>Financial satisfaction</b>					
Sufficient	21 (44.68)	10 (21.28)	9 (19.15)	7 (14.89)	0.222 <sup>a*</sup>
Barely enough	13 (27.08)	7 (14.58)	16 (33.33)	12 (25.00)	
Insufficient	23 (30.67)	9 (12.00)	27 (36.00)	16 (21.33)	

<b>Concerns about your current living situation</b>					
No	24 (46.15)	9 (17.31)	11 (21.15)	8 (15.38)	0.070 <sup>a*</sup>
Yes	33 (28.21)	16 (13.68)	41 (35.04)	27 (23.08)	
<b>Duration of having HIV</b>					
Less than 3 years	7 (25.93)	3 (11.11)	6 (22.22)	11 (40.74)	0.063 <sup>b*</sup>
From 3 to 10 years	22 (37.93)	3 (5.17)	18 (31.03)	15 (25.86)	
More than 10 years	27 (39.71)	7 (10.29)	26 (38.24)	8 (11.76)	
<b>Presence of chronic diseases</b>					
Yes	29 (42.03)	3 (4.35)	23 (33.33)	14 (20.29)	0.216 <sup>b*</sup>
No	27 (30.68)	11 (12.50)	29 (32.95)	21 (23.86)	
<b>Health status</b>					
Very Good	10 (41.67)	3 (12.50)	8 (33.33)	3 (12.50)	0.007 <sup>b***</sup>
Good	25 (51.02)	4 (8.16)	14 (28.57)	6 (12.24)	
Fair	16 (23.88)	5 (7.46)	28 (41.79)	18 (26.87)	
Poor	5 (31.25)	2 (12.50)	1 (6.25)	8 (50.00)	
<b>Physical activities</b>					
A little	4 (30.77)	3 (23.08)	1 (7.69)	5 (38.46)	0.003 <sup>b***</sup>
Moderately	7 (18.92)	3 (8.11)	15 (40.54)	12 (32.43)	
Mostly	5 (21.74)	4 (17.39)	8 (34.78)	6 (26.09)	
Completely	40 (48.19)	4 (4.82)	27 (32.53)	12 (14.46)	
<b>Receiving HIV treatment</b>					
Yes	55 (37.16)	12 (8.11)	50 (33.78)	31 (20.95)	0.081 <sup>b*</sup>
No	1 (14.29)	2 (28.57)	1 (14.29)	3 (42.86)	
<b>Presence of reasons for ARV treatment failure</b>					
No	40 (36.70)	8 (7.34)	36 (33.03)	25 (22.94)	0.308 <sup>b</sup>
Yes	2 (18.18)	1 (9.09)	3 (27.27)	5 (45.45)	
<b>Access to ARV therapy in the last 12 months</b>					
Good	51 (39.53)	9 (6.98)	44 (34.11)	25 (19.38)	0.048 <sup>b***</sup>
Fair	5 (20.83)	4 (16.67)	6 (25.00)	9 (37.50)	
<b>Number of days of missed treatment in the last month</b>					
0	24 (42.11)	2 (3.51)	21 (36.84)	10 (17.54)	0.028 <sup>b***</sup>

1-3	22 (34.92)	6 (9.52)	21 (33.33)	14 (22.22)	
4-8	0 (0.00)	2 (22.22)	4 (44.44)	3 (33.33)	
9 or more	6 (60.00)	1 (10.00)	0 (0.00)	3 (30.00)	
<b>Level of satisfaction with the treatment services</b>					
Completely satisfied	29 (43.28)	8 (11.94)	19 (28.36)	11 (16.42)	0.022 <sup>b</sup>
Satisfied/neutral	25 (31.65)	4 (5.06)	32 (40.51)	18 (22.78)	
Dissatisfied	3 (33.33)	1 (11.11)	0 (0.00)	5 (55.56)	
<b>Receiving support</b>					
Yes	42 (39.62)	9 (8.49)	35 (33.02)	20 (18.87)	0.477
No	13 (30.95)	4 (9.52)	12 (28.57)	13 (30.95)	
Other	1 (16.67)	0 (0.00)	4 (66.67)	1 (16.67)	
<b>Ability to cope with stress</b>					
Never	10 (71.43)	1 (7.14)	3 (21.43)	0 (0.00)	<0.001 <sup>b**</sup>
Sometimes	44 (40.37)	6 (5.50)	40 (36.70)	19 (17.43)	
Often	3 (9.38)	4 (12.50)	9 (28.12)	16 (50.00)	
<b>Social Support</b>	13.76± 2.42	12.72± 2.50	11.90±1.69	10.00 ± 3.09	<0.001 <sup>d**</sup>
<b>Internalized AIDS-related stigma</b>	2.39± 1.69	1.90±1.37	2.13±1.87	3.78±1.96	0.0004 <sup>d**</sup>
<b>Public stigma</b>	1.16 ± .63	1.36± .50	1.21 ± .65	1.63± .55	0.0082 <sup>c**</sup>

<sup>a</sup> Chi-squared test

<sup>b</sup> Fisher exact test

<sup>c</sup> One Way Analysis of Variance (ANOVA)

<sup>d</sup> Kruskal-Wallis one-way ANOVA

\* p<0.25

\*\* p<0.05

Table 4 shows the distribution of the complete mental health of people living with HIV in Kazakhstan by sociodemographic characteristics, physical health characteristics, stigma and social support (n=170). Between the outcome variable and the following independent variables, considerable correlations were found (p<0.05): sex at birth (p=0.040), differences in gender identity compared to sex at birth (p=0.034), health status (p=0.007), physical activities (p=0.003), access to ARV therapy in the last 12 months (p=0.048), number of days of missed treatment in the last month (p=0.028), ability to cope with stress (p<0.001), social support

( $p < 0.001$ ), internalized AIDS-related stigma ( $p < 0.001$ ), public stigma ( $p = 0.008$ ). Variables that showed association with the outcome variable ( $p < 0.25$ ) were included in further multivariable analysis: gender identity ( $p = 0.151$ ), ethnicity ( $p = 0.214$ ), status of employment ( $p = 0.079$ ), financial satisfaction ( $p = 0.222$ ), concerns about current living situation ( $p = 0.070$ ), duration of having HIV ( $p = 0.063$ ), presence of chronic diseases ( $p = 0.216$ ), receiving HIV treatment ( $p = 0.081$ ).

### **Multivariate multinomial Logistic Regression Analyses**

To construct the final model, we used a stepwise regression method where the associated variables from the bivariate analysis were input into three separate multivariate multinomial logistic regression models to examine the relationship between the outcome variable and three groups of independent variables: (1) sociodemographic characteristics, (2) physical health, and (3) stigma and social support. Given that the smallest outcome category "Flourishing with mental illness" included only 26 respondents, we were limited by the rule of thumb for 10 events per variable in the number of independent characteristics incorporated into the model. By direct selection, we selected one independent variable from each group of independent variables: (1) socio-demographic characteristics (Age), (2) physical health, and (3) internal stigma and social support, all of which met the significance level of  $p < 0.05$ . To estimate the final model, a likelihood ratio test and goodness of variance test were conducted. The model was also tested for linearity of the continuous exposure variable, through the addition of a polynomial term. The polynomial term was found to be insignificant, indicating that the continuous predictor is linearly related to the logarithmic coefficients of the outcome. The likelihood ratio test yields a significant  $p$ -value  $< 0.001$ , which indicated that the model without polynomial terms is different from the model with polynomial terms. Additional AIC/BIC statistics were utilized to check the different models. The AIC/BIC values were not too close

to each other, so we find that there is a difference in the predictive power of the two models. Before starting to analyze the final model, we performed a test for goodness of fit of outliers, which showed  $p > 0.001$ , confirming that this model provides a considerably better fit to the data compared to the null model.

**Table 5.** Multivariate multinomial logistic regression analysis of complete of mental health among HIV-positive individuals (n = 170).

Characteristics	Flourishing without mental illness		Flourishing with mental illness		Mental illness without flourishing	
	Ratio of OR	95% CI	Ratio of OR	95% CI	Ratio of OR	95% CI
<b>Age</b>						
<b>18-34</b>	ref					
35-44	1.52	[.46; 4.97]	.71	[.09; 5.22]	.58	[.16; 2.06]
45-64	1.27	[.35; 4.57]	.78	[.10; 5.96]	<b>.08*</b>	[.014; .53]
<b>Physical health</b>						
<b>A little</b>	ref					
Moderately	.10	[.007; 1.66]	0.13	[.006 ; 1.92]	<b>.03*</b>	[.001; .56]
Mostly	.25	[.02; 2.76]	<b>0.019 *</b>	[.002; .57]	<b>.01*</b>	[.001; .30]
Completely	.14	[.011; 1.66]	<b>0.03*</b>	[.003; .83]	<b>.05*</b>	[.003; .74]
<b>Internal stigma</b>	1.23	[.95; 1.60]	.95	[.61; 1.46]	<b>1.42*</b>	[1.05; 1.92]
<b>Social support</b>	<b>1.57*</b>	[1.25; 1.96]	1.20	[.84; 1.71]	<b>.76*</b>	[.59; .97]

Note: OR = odds ratio; CI = confidence interval; Not flourishing but no mental illness group was the reference group. \* $p < .05$ .

Table 5 displays the findings of the multivariate multinomial logistic regression analysis. So, the likelihood ratio chi-square test was found to be significant,  $\chi^2(24) = 89.52$ ,  $p < 0.0001$ . The pseudo R<sup>2</sup> was 0.2353 for the given model, specifying that approximately 23.53% of the variance of the mental health categories was captured for by the predictors included in the model.

Individuals who received more social support were 57% likelier to fall into the first group of Flourishing without mental illness (OR = 1.57,  $p < .0001$ ) compared to the control group. Further, respondents who have mostly and complete ability to carry out every day physical activities in the second category of the baseline variable are less likely to fall into this category compared to the reference group. As for the last group, Mental illness without flourishing, those in the 45-64 age category were 92% less likely to fall into category four in comparison with control group. For the category of people with Mental illness without flourishing, physical activity was significant predictor, in particular respondents who are moderately and completely capable to carry out every day physical activities were considerably fewer likely to be in category 4 compared to those with little ability to perform physical activity. Also, people with greater internal stigma were 42% more frequently fall into category Mental illness without flourishing, in comparison with the reference group of No Mental illness and not flourishing group. Moreover, the results of this analysis revealed that people who receive more social support were 24% fewer likely to fall into the Mental illness without flourishing category compared to the control group.

## **Discussion**

The presented study is one of the first cross-sectional studies to examine the association of a range of demographic, physical and psychosocial factors with mental health and well-being in adults with HIV in Kazakhstan. This study radiated positive mental health alongside mental illness, utilizing a dual continuum model. The results of given study demonstrated that 1/3 of the population sample of individuals with HIV in Kazakhstan have positive mental health and are flourishing, largely due to receiving high levels of social support. Individuals with greater physical functioning were fewer likely to be in the category of flourishing in the presence of

mental illness. Lack of social support, internal stigma, difficulty in performing daily physical activities and younger age are connected with depression and anxiety symptoms without flourishing.

Using two continuum models, we found that 33.53% of adults living with HIV fell into the category of flourishing without mental illness. In a study with a similar categorization but sampling young adults in the US, 61.4% of the sample was found to be in the Flourishing group (Renshaw & Cohen, 2014), and in a study of students, 57% was found to be in the Flourishing without mental illness group (Suldo & Shaffer, 2008). These results suggest that people with HIV status are less prone to flourishing in comparison with the overall population. Moreover, there are studies proving that persons with HIV suffer from mental disorders more often compared to the population at large (Krause & Halkitis, 2022). Despite notable advances in access to free antiretroviral treatment in Kazakhstan, individuals with HIV continue to face significant level of stigma, discrimination and poor quality of services (Amanzholov et al., 2022). Also according to our analysis we found that higher social support was correlated with flourishing in the absence of mental illness. Also, higher levels of flourishing are correlated with higher levels of social support (Lyons et al., 2016). However, more research is necessary to completely grasp exactly what support interventions might be essential to the well-being of individuals with HIV in Kazakhstan. As some supports can be more favorable to flourishing than others, and this may be important to consider in future implementation programs to foster positive mental health among HIV-positive adults in Kazakhstan.

The prevalence of Flourishing in the presence of mental illness group in our study was 15.29%. Our analysis showed that prevalence estimates for this group in our study are higher than previous studies on a population of young adults in the United States (4.8%; Renshaw &

Cohen, 2014; 13%; Suldo & Shaffer, 2008). Moreover, in this group there was an association with the ability to perform daily physical activities (walking, climbing stairs, etc.). As our analysis showed, people who assessed their abilities as mostly full or complete were less likely to be in this group than in the reference one. This is most likely associated with the existence of depression and/or anxiety in this group, which can negatively impact the ability to perform daily activities, even though there is general prosperity among this group.

The prevalence of the control group Not flourishing but no mental illness group was 30.59%. These people do not flourish or languish in life, and they are susceptible to depression and anxiety because of lack of flourishing. That is a large portion of people who are still not covered by the system of mental health services. Thus, there is a need to develop comprehensive screening and management patterns that incorporate the 4 categories of mental illness and health.

The Mental illness without flourishing group in this study accounted for 20.59% of the sample in previous studies among youth with similar methodology of categorizing mental health groups 15.1% (Renshaw & Cohen, 2014) and 17% of participants (Suldo & Shaffer, 2008) were categorized in this group. One possible explanation could be that individuals with HIV are higher prevalence of mental illness compared to the population at large. High levels of internal and public stigma (Amanzholov et al., 2022), low social support (Lyons et al., 2016), and reduced capacity to carry out daily activities (Jang et al., 2019) may contribute to this. In our study, it was also shown that people older than 44 years old are less likely to fall into the Mental illness without flourishing group. This may be because older people were better able to cope with difficult life situations due to their greater life experience (Jiang & Lu, 2019). Moreover, people who have a good assessment of their ability to perform daily physical activity

were less likely to fall into this group. This results might be explained by people with HIV and with mental disorders are more likely to have difficulties in performing daily physical activities (Jang et al., 2019). Moreover, the manifestations of HIV can affect physical and social functioning, which also influences the onset of depression and anxiety (Crystal et al., 2000). Moreover our analysis of this group presented a high association with internal stigma. Specifically, people with HIV, who are not flourishing and having depression and/or anxiety, more often internally stigmatized compared to reference group. This finding in line with previous studies which showed that internal stigma negatively affects mental health (Remien et al., 2019). Finally, our study results demonstrated that people living with HIV falling into this group receive less social support. Social support is an important component in the well-being of individuals with HIV (Wolitski et al., 2009).

### **Study strengths and limitations**

The strength of the given study is that it is the first study to investigate the association of a wide range of demographic, health and psychosocial factors with the mental health of individuals with HIV in Kazakhstan. In this study we radiated positive mental health alongside mental illness, utilizing a dual continuum model. Moreover, the scales used in the study are widely validated, have been used in many studies and have a high reliability coefficient. Also, the current study included a diverse population as it included respondents from different regions of Kazakhstan. This study also raises awareness about mental health among people with HIV and can inform the development of future intervention programs.

Another limitation of this study is the impossibility of identifying causality due to a cross-sectional research design. Further studies are warranted to explore the origins of mental illness as well as mental health in the presence of HIV status.

Also, the sample in this study is not selected randomly, which accounts for the low generalizability of the study results. Moreover, the sample did not include youth and adolescents with HIV in Kazakhstan, and thus the findings are not generalizable to these groups. Many questions were left unanswered because participants were allowed to skip questions if they were uncomfortable with something, resulting in the exclusion of answers. Moreover, screening instruments were used to diagnose mental illness rather than medical evidence of documented depression or anxiety. It is recommended that future studies on this topic incorporate inclusion criteria with evidence of mental diagnosis to validate the applicability of the categories of mental health and illnesses.

Another limitation was the limited sample size (n=170) and hence the low power of the study to reveal a significant association. Categorization of the outcome variable into 4 categories limited the number of factors to be studied in the multinomial logistic analysis process. Future studies ought to increase the sample size to broadly explore factors affecting mental health in individuals with HIV in Kazakhstan.

### **Practical implications/ recommendations**

- In some regions of Kazakhstan, comprehensive support services that meet the needs of individuals with HIV, including psychological/psychiatric care, counseling for young people, and social services, may be unavailable or insufficiently accessible. Without adequate support systems, people living with HIV may find it difficult to manage with the emotional and practical challenges of living with HIV. Further expansion of access to social support and health services for people with HIV in Kazakhstan, which can have a beneficial effect on their mental health and wellbeing, is recommended.

- Internalized stigma can lead to significant psychological stress in individuals with HIV, including depression, anxiety and feelings of despair. This disorder can prevent them from engaging in meaningful activities, pursuing goals, and maintain positive relationships. Moreover, fear of disclosing of status and and subsequent discrimination also affects internal stigma among people with HIV. It is recommended to continue and strengthen public awareness of HIV infection in Kazakhstan, with a focus on reducing discrimination in various spheres of life, which affects internal stigma and mental health of people living with HIV.

## **Conclusion**

The findings of this study demonstrated that a third of our sample have positive mental health and are flourishing, and this is mostly associated with the presence of high social support. People with better physical health were less likely to flourish in the existence of symptoms of mental illness. Insufficient social support, internal stigma, difficulty in performing daily physical activities and younger age were correlated with symptoms of depression and anxiety without flourishing.

It is recommended to increase access to social care support and health services for individuals with HIV, which can positively impact their mental health and wellbeing.

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## Appendices

### Appendix 1. Informed Consent for Internet Survey (English version)

#### Informed Consent for Internet Survey

You are invited to participate in the study “**Factors associated with mental health and wellbeing of adult people living with HIV in Kazakhstan**”. The purpose of the study is to determine the association of the physical health factors, as well as demographic and psychosocial factors with mental health of people living with HIV in Kazakhstan, focusing on positive mental health. The study procedure involves completing an online survey, which takes approximately 15 minutes. The questionnaire consists of 48 questions, related to demographics, physical and mental health, stigma associated with HIV-positive status, and social support.

Taking part in this research has no potential risks, and there are no direct benefits of participating for you. However, the results of this study can provide the basis for future public health programs aimed not only to treat or prevent mental illness, but also to promote the mental health and well-being of HIV-positive people in Kazakhstan.

Any information obtained from this survey will be held confidential. This is an anonymous survey and none of your name or other identifying information will be collected. The results of the study will be presented in aggregated form and will be used only for research purposes.

Participation in this study is voluntary. You have a right to withdraw from the study at any time without any consequences. If you feel uncomfortable answering any question, you can skip it.

If you have any questions about the research, you can contact Pavel Savin, advocacy specialist at the Kazakhstan Union of People Living with HIV, by mobile phone: 8-776-270-31-97 or email address: [pavelsavin880720@gmail.com](mailto:pavelsavin880720@gmail.com), or contact directly the Investigator Adel Abenova, a 2nd year Master of Public Health student at Nazarbayev University School of Medicine, by mobile phone: 8-701-612-26-24 or email address: [adel.abenova@nu.edu.kz](mailto:adel.abenova@nu.edu.kz) and Research Advisor, Raushan Alibekova, mobile phone: 8-777-010-50-27, email address: [raushan.alibekova@nu.edu.kz](mailto:raushan.alibekova@nu.edu.kz).

This study has been reviewed and cleared by the Nazarbayev University Institutional Research Ethics Committee. If you have concerns or questions about your rights as a participant or about the way the study is conducted, you may contact: Nazarbayev University Institutional Research Ethics Committee. E-mail: [resethics@nu.edu.kz](mailto:resethics@nu.edu.kz)

If you experience discomfort or emotional stress during this survey, you may seek psychological help at this cell phone number: 8-701-520-54-33.

By clicking “I agree” below you are indicating that you are at least 18 years old, HIV-positive, have read and understood this consent form and agree to participate voluntary in this research study.

- I Agree
- I Disagree

Informed Consent for Internet Survey (Russian version)

**Информированное согласие на участие в интернет-опросе**

Приглашаем Вас принять участие в исследовании **«Факторы, связанные с психическим здоровьем и благополучием взрослых людей, живущих с ВИЧ в Казахстане»**. Целью исследования является изучение влияния ряда факторов физического здоровья, а также демографических и психосоциальных факторов на психическое здоровье людей, живущих с ВИЧ в Казахстане, фокусируясь на состоянии позитивного психического здоровья. Процедура исследования включает в себя заполнение онлайн-опроса, который занимает примерно 15 минут. Опросник состоит из 48 вопросов, касающихся демографических характеристик, физического и психического здоровья, стигмы связанной с ВИЧ-положительным статусом и социальной поддержки.

Участие в исследовании не связано с потенциальными рисками, а также не несет прямых выгод для Вас. Тем не менее, результаты данного исследования могут стать основой для будущих программ общественного здравоохранения направленных не только на лечение или предотвращение психических заболеваний, но и на укрепление психического здоровья и благополучия ВИЧ-положительных людей в Казахстане.

Любая информация, полученная в ходе опроса, будет конфиденциальной. Опрос является анонимным, мы не будем собирать никакую личную идентифицирующую информацию. Результаты исследования будут представлены в агрегированном виде и будут использоваться только в исследовательских целях.

Участие в этом исследовании является добровольным. Вы имеете право отказаться от участия в исследовании в любое время без каких-либо последствий. Если Вам неудобно отвечать на какой-либо вопрос, Вы можете его пропустить.

Если у Вас есть какие-либо вопросы по поводу исследования, Вы можете связаться со специалистом по адвокации «Казахстанского союза людей живущих с ВИЧ» Павлом Савиным, по телефону: 8-776-270-31-97, адрес электронной почты: [pavelsavin880720@gmail.com](mailto:pavelsavin880720@gmail.com), либо напрямую с исследователем Адель Абеновой, студент 2-го курса магистратуры общественного здравоохранения Школы медицины Назарбаев Университета, по телефону: 8-701-612-26-24 или электронной почте: [adel.abenova@nu.edu.kz](mailto:adel.abenova@nu.edu.kz) и научным руководителем Раушан Алибековой, телефон: 8-777-010-50-27, адрес электронной почты: [raushan.alibekova@nu.edu.kz](mailto:raushan.alibekova@nu.edu.kz).

Это исследование было рассмотрено и одобрено Институциональным комитетом этики научных исследований Назарбаев Университета. Если у вас есть опасения или вопросы о ваших правах как участника или о том, как проводится исследование, вы можете обратиться в Институциональный комитет этики научных исследований Назарбаев Университета: [resethics@nu.edu.kz](mailto:resethics@nu.edu.kz)

Если в процессе данного опроса Вы почувствуете дискомфорт или эмоциональный стресс Вы можете обратиться за психологической помощью по данному мобильному телефону: 8-701-520-54-33.

Нажимая «Я согласен(а)» ниже, Вы указываете, что Вам не менее 18 лет, являетесь ВИЧ-положительным, прочитали и поняли эту форму согласия и согласны добровольно участвовать в этом исследовании.

- Я согласен(а)
- Я не согласен(а)

Informed Consent for Internet Survey (Kazakh version)

### **Интернет-сауалнамаға қатысуға ақпараттандырылған келісім**

Сізді «Қазақстандағы АИТВ-мен өмір сүретін ересектердің психикалық денсаулығы мен әл-ауқатымен байланысты факторлар» зерттеуіне қатысуға шақырамыз. Зерттеудің мақсаты – Қазақстандағы АИТВ-мен өмір сүретін адамдардың психикалық денсаулығына бірқатар физикалық денсаулық факторларының, сондай-ақ демографиялық және психоэлеуметтік факторлардың әсерін зерттеу, әсіресе оң психикалық денсаулығына назар аударып. Зерттеу процедурасы шамамен 15 минутты алатын онлайн сауалнаманы толтыруды қамтиды. Сауалнама демографиялық сипаттарды, физикалық және психикалық денсаулықты, АИТВ-мен байланысты стигманы және элеуметтік қолдауды қамтитын 48 сұрақтан тұрады.

Бұл зерттеуге қатысудың ықтимал қауіптері де, сіз үшін тікелей пайдасы да жоқ. Дегенмен, бұл зерттеудің нәтижелері психикалық ауруларды емдеуге немесе алдын алуға ғана емес, сонымен қатар Қазақстандағы АИТВ-позитивті адамдардың психикалық денсаулығы мен әл-ауқатын жақсартуға бағытталған болашақ қоғамдық денсаулық сақтау бағдарламаларына негіз бола алады.

Осы зерттеу барысында алынған кез-келген ақпарат мүмкіндігінше құпия болып қалады. Бұл анонимді сауалнама, яғни сіздің атыңыз және басқа жеке ақпаратыңыз жиналмайды. Зерттеу нәтижелері жинақталған түрде ұсынылады және тек зерттеу мақсатында пайдаланылады.

Бұл зерттеуге қатысу ерікті. Сіз кез келген уақытта ешқандай салдарсыз зерттеуден бас тартуға құқылысыз. Кез келген сұраққа жауап беруге ыңғайсыз болса, оны өткізіп жіберуге болады.

Зерттеуге қатысты сұрақтарыңыз болса, "АИТВ-мен өмір сүретін адамдардың Қазақстандық Одағының" адвокаттық маманы Павел Савинмен 8-776-270-31-97 телефоны бойынша хабарласуға болады, электрондық пошта арқылы: [ravelsavin880720@gmail.com](mailto:ravelsavin880720@gmail.com) немесе зерттеуші Адель Абеновамен тікелей, Назарбаев Университеті Медицина мектебінің қоғамдық денсаулық сақтау магистрі, 2 курс студенті, телефоны: 8-701-612-26-24, электрондық поштасы: [adel.abenova@nu.edu.kz](mailto:adel.abenova@nu.edu.kz) және ғылыми жетекші Раушан Алибековамен хабарласуға болады, телефон: 8-777-010-50-27 немесе электрондық поштасы арқылы: [raushan.alibekova@nu.edu.kz](mailto:raushan.alibekova@nu.edu.kz).

Бұл зерттеуді Назарбаев Университетінің ғылыми зерттеулер этикасы жөніндегі институционалдық комитеті қарастырды және растады. Қатысушы ретіндегі құқықтарыңызға немесе зерттеуді жүргізу тәсіліне қатысты сұрақтарыңыз немесе ұсыныстарыңыз болса, Назарбаев Университетінің ғылыми зерттеулер этикасы жөніндегі институционалдық комитетіне хабарласуыңызға болады: [resethics@nu.edu.kz](mailto:resethics@nu.edu.kz)

Егер сіз осы сауалнама кезінде ыңғайсыздықты немесе эмоционалды күйзелісті сезінсеңіз, мына телефон арқылы психологиялық көмекке жүгінуге болады: 8-701-520-54-33.

Төмендегі «Келісемін» жауабын таңдау арқылы сіз кемінде 18 жаста екеніңізді, АИТВ-позитивті екеніңізді, осы келісім формасын оқып, түсінгеніңізді және осы зерттеуге ерікті түрде қатысуға келісесіз.

- ◆ Мен келісемін
- ◆ Мен келіспеймін

**Appendix 2. Questionnaire**  
(English version)

**Questionnaire**

**Part 1. Socio-demographic information**

**1. Please specify your sex:**

- Male
- Female

**2. Some people have a different gender identity from the one on their birth certificate. What is your current gender identity?**

- Male
- Female
- Transgender
- Do not identify myself as female, male or transgender
- Prefer not to answer

**3. Please indicate your age:**

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or more

**4. Please indicate your ethnicity:**

- Kazakh
- Russian
- Uzbek
- Other (specify) \_\_\_\_\_

**5. Please indicate your level of education?**

- No education
- Primary education
- Secondary education
- Secondary-special education
- Bachelor degree
- Other (specify) \_\_\_\_\_

**6. In what region of Kazakhstan do you live?**

- Abay region
- Akmola region
- Aktobe region
- Almaty region
- Atyrau region
- Western Kazakhstan region
- Zhambyl region
- Zhetysu region

- Karaganda region
- Kostanai region
- Kyzylorda region
- Mangystau region
- Pavlodar region
- Northern Kazakhstan region
- Turkistan region
- Ulytau region
- Eastern Kazakhstan region
- Astana
- Almaty
- Shymkent

**7. Which of the following best describes the area you live in?**

- Urban area
- Suburban area
- Rural area
- Other (specify) \_\_\_\_\_

**8. Please indicate if you are in a regular relationship?**

- Yes
- No
- Prefer not to answer

**9. What is your employment status?**

- Employed, full-time
- Employed, part-time
- Not employed

**10. Please, select your financial satisfaction level.**

- Insufficient to meet needs
- Just adequate to meet needs
- Sufficient to meet needs
- More than sufficient to meet needs

**11. Do you have any concerns about your current living situation, like housing conditions, safety, and costs?**

- Yes
- No

Part 2. General health information

**12. How long have you been living with HIV?**

- Less than 1 year
- More than 1 year
- From 3 to 5 years
- From 5 to 10 years
- More than 10 years

**13. Do you have any other chronic diseases?**

- Yes
- No
- Don't know

**14. If you answered "Yes" to the previous question, please indicate which chronic diseases you have**

- Chronic hepatitis C
- Chronic hepatitis B
- Diabetes mellitus
- Bronchial asthma
- Arterial hypertension
- Other (specify) \_\_\_\_\_

**15. In general, would you say your health is:**

- Poor
- Fair
- Good
- Very Good
- Excellent

**16. To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?**

- Not at all
- A little
- Moderately
- Mostly
- Completely

**17. Are you currently or have you ever been receiving HIV treatment (taking antiretroviral (ARV) treatment)?**

- Yes
- No

**18. What is the main reason that you are currently not taking ARV treatment or have you ever discontinued it?**

- I do not have a stockpile of necessary medications
- I can not tolerate the side effects of drugs
- I do not feel the need for treatment
- I do not want my relatives to know that I am on treatment.
- I do not have a problem with taking the treatment
- Other reasons ( specify) \_\_\_\_\_

**19. Please evaluate your access to ARV therapy in the last 12 months**

- Poor
- Fair
- Good
- Very good

**20. In the last month, on how many days did you miss at least one dose of any of your antiretroviral pills? (indicate the number of days from 0 to 30)**

\_\_\_\_\_ day(s)

**21. Overall, how would you rate your level of satisfaction with the treatment services provided by the medical staff at the HIV Prevention Center at your place of residence:**

- Extremely dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Completely satisfied

**22. Do you receive any services from one of the organizations supporting people living with HIV in Kazakhstan?**

- Yes
- No
- Other (specify) \_\_\_\_\_

### Part 3. Mental health and well-being

#### **Instructions to Questions 23-31.**

**These questions are designed to measure your positive mental health through perceptions of your self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism. Below are 8 statements with which you may agree or disagree. Using the 1–7 scale below, please indicate your response to each of the statements.**

**23. I lead a purposeful and meaningful life.**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree; 4 = Mixed or neither agree nor disagree; 5= Slightly agree; 6= Agree; 7= Strongly agree

**24. My social relationships are supportive and rewarding.**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree ; 4 = Mixed or neither agree nor disagree; 5= Slightly agree; 6= Agree ; 7= Strongly agree

**25. I am engaged and interested in my daily activities**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree ; 4 = Mixed or neither agree nor disagree; 5= Slightly agree; 6= Agree ; 7= Strongly agree

**26. I actively contribute to the happiness and well-being of others**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree ; 4 = Mixed or neither agree nor disagree; 5= Slightly agree; 6= Agree ; 7= Strongly agree

**27. I am competent and capable in the activities that are important to me**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree ; 4 = Mixed or neither agree nor disagree; 5= Slightly agree; 6= Agree ; 7= Strongly agree

**28. I am a good person and live a good life**

1= Strongly disagree; 2 = Disagree; 3 = Slightly disagree ; 4 = Mixed or neither agree nor disagree; 5= Slightly agree; 6= Agree ; 7= Strongly agree

**29. I am optimistic about my future**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree ; 4 = Mixed or neither agree nor disagree; 5= Slightly agree; 6= Agree ; 7= Strongly agree

**30. People respect me**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree ; 4 = Mixed or neither agree nor disagree;  
5= Slightly agree; 6= Agree ; 7= Strongly agree

**31. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?**

- Never
- Almost never
- Sometimes
- Fairly often
- Very often

**Questions 32-35:**

**Over the last 2 weeks, how often have you been bothered by the following problems?**

**32. Little interest or pleasure in doing things**

- Not at all
- Several days
- More than half the days
- Nearly every day

**33. Feeling down, depressed or hopeless**

- Not at all
- Several days
- More than half the days
- Nearly every day

**34. Feeling nervous, anxious or worried**

- Not at all
- Several days
- More than half the days
- Nearly every day

**35. Not being able to stop or control worrying**

- Not at all
- Several days
- More than half the days
- Nearly every day

Part 4. Stigma and Social Support

**Instructions to Questions 36-43.**

**These questions are designed to measure the external and internal stigma associated with HIV status. Below are 8 statements with which you may agree or disagree. Please indicate your agreement with each item by indicating this answer for each statement.**

**36. Have you been treated differently after disclosing your HIV status to friends and family**

- Yes
- No

**37. You have not disclosed your HIV status to some people out of fear of negative consequences**

- Yes

No

**38. It is difficult to tell people about my HIV status**

Agree

Disagree

**39. Being HIV positive makes me feel dirty**

Agree

Disagree

**40. I feel guilty that I am HIV positive**

Agree

Disagree

**41. I am ashamed that I am living with HIV**

Agree

Disagree

**42. I sometimes feels worthless because I am HIV positive**

Agree

Disagree

**43. I hide my HIV status from others**

Agree

Disagree

#### **Instructions to Questions 44-48**

**These questions are designed to measure your emotional, appraisal, instrumental and informational support. Below are 4 statements with which you may agree or disagree. Using the 0 to 4 scale below, indicate your agreement with each item by indicating that answer for each statement.**

**44. There are people in my life who pay attention to my feelings and problems**

0 = Strongly disagree; 1 = Disagree; 2 = Neutral; 3 = Agree; 4 = Strongly Agree

**45. There are people in my life who appreciate what I do**

0 = Strongly disagree; 1 = Disagree; 2 = Neutral; 3 = Agree; 4 = Strongly Agree

**46. There are people in my life who I can get help from if I need it**

0 = Strongly disagree; 1 = Disagree; 2 = Neutral; 3 = Agree; 4 = Strongly Agree

**47. There are people in my life who I can talk to about how to handle things**

0 = Strongly disagree; 1 = Disagree; 2 = Neutral; 3 = Agree; 4 = Strongly Agree

**48. In which of the following areas do you need help? (Mark all that apply)**

Food

Housing

Transportation

Utilities (heat, electricity, water, etc.)

Medical care, medicine, medical supplies

Psychological counseling

Dental services

Vision services

Applying for monthly public benefits (for people living with HIV / unemployment benefits / targeted social assistance / disability benefits, etc.)

More help with activities of daily living

Childcare/other child-related issues

- Debt/loan repayment
- Legal issues
- Employment
- Other (specify) \_\_\_\_\_
- I don't need help with any of these

Questionnaire  
(Russian version)

**Опросник**

**Часть 1. Социально-демографическая информация**

**1. Укажите, пожалуйста, Ваш пол:**

- Мужской
- Женский

**2. Половая идентификация некоторых людей отличается от той, которая указана в их свидетельстве о рождении. Как Вы идентифицируете себя сейчас?**

- Мужчина
- Женщина
- Трансгендер
- Не идентифицирую себя, как женщину, мужчину или трансгендера
- Я предпочитаю не отвечать

**3. Укажите, пожалуйста, Ваш возраст:**

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 или более

**4. Укажите, пожалуйста, Вашу национальность:**

- Казах/казашка
- Русский/русская
- Узбек/узбечка
- Другое (впишите) \_\_\_\_\_

**5. Укажите, пожалуйста, уровень Вашего образования?**

- Без образования
- Неполное среднее
- Среднее
- Среднее-специальное
- Степень бакалавра
- Другое (уточните) \_\_\_\_\_

**6. В каком регионе Казахстана Вы проживаете?**

- Область Абай
- Акмолинская область

- Актюбинская область
- Алматинская область
- Атырауская область
- Восточно-Казахстанская область
- Жамбылская область
- Область Жетісу
- Карагандинская область
- Костанайская область
- Кызылординская область
- Мангистауская область
- Павлодарская область
- Северо-Казахстанская область
- Туркестанская область
- Область Ұлытау
- Западно-Казахстанская область
- Астана
- Алматы
- Шымкент

**7. Что из перечисленного ниже лучше всего описывает местность, в которой Вы живете?**

- Город
- Пригород
- Село
- Другое (впишите) \_\_\_\_\_

**8. Укажите, пожалуйста, состоите ли Вы в постоянных отношениях?**

- Да
- Нет
- Предпочитаю не отвечать

**9. Каков Ваш статус занятости?**

- Работаю, полный рабочий день
- Работаю, неполный рабочий день
- Не работаю

**10. Пожалуйста, выберите уровень Вашей финансовой удовлетворенности.**

- Недостаточно для удовлетворения потребностей
- Едва достаточно для удовлетворения потребностей
- Достаточно для удовлетворения потребностей
- Более чем достаточно для удовлетворения потребностей

**11. Есть ли у Вас какие-либо опасения по поводу Вашей нынешней жизненной ситуации, например, жилищных условий, безопасности и расходов?**

- Да
- Нет

Часть 2. Информация об общем состоянии здоровья

**12. Сколько лет Вы живете с ВИЧ?**

- Менее 1 года
- Более 1 года
- От 3 до 5 лет
- От 5 до 10 лет
- Более 10 лет

**13. Есть ли у Вас другие хронические заболевания?**

- Да
- Нет
- Не знаю

**14. Если Вы ответили "Да" на предыдущий вопрос, укажите, пожалуйста, какие именно другие хронические заболевания у Вас имеются.**

- Хронический гепатит С
- Хронический гепатит В
- Сахарный диабет
- Бронхиальная астма
- Артериальная гипертензия
- Другое (впишите) \_\_\_\_\_

**15. Как бы Вы в целом оценили свое нынешнее состояние здоровья?**

- Плохое
- Удовлетворительное
- Хорошее
- Очень хорошее
- Отличное

**16. Насколько Вы способны выполнять повседневные физические действия, такие как ходьба, подъем по лестнице, поход за продуктами или перемещение стула?**

- Совсем не могу
- В незначительной степени
- В умеренной степени
- По большей части
- В полном объеме

**17. Вы в настоящее время или когда-либо проходили лечение от ВИЧ (принимали антиретровирусную (АРВ) терапию)?**

- Да
- Нет

**18. Какова основная причина, что в настоящее время вы не принимаете АРВ лечение или когда-либо прекращали его?**

- У меня нет запаса необходимых лекарств
- Я не могу переносить побочные эффекты лекарств
- Я не чувствую необходимости в лечении
- Я не хочу, чтобы близкие мне люди знали о том, что я прохожу лечение.
- У меня нет проблем с прохождением лечения
- Другие причины (впишите) \_\_\_\_\_

**19. Оцените ваш доступ к АРВ-терапии за последние 12 месяцев:**

- Плохо

- Удовлетворительно
- Хорошо
- Очень хорошо

**20. За последний месяц сколько дней Вы пропускали хотя бы одну дозу антиретровирусных таблеток? (впишите количество дней от 0 до 30) \_\_\_\_\_ дней**

**21. В целом, насколько Вы удовлетворены оказанием терапевтических услуг медицинским персоналом в Центре по профилактике ВИЧ-инфекции по месту вашего проживания:**

- Крайне неудовлетворен/а
- Неудовлетворен/а
- Нейтральный/а
- Удовлетворен/а
- Полностью удовлетворен/а

**22. Получаете ли Вы услуги в одной из организаций, оказывающих поддержку людям, живущим с ВИЧ в Казахстане?**

- Да
- Нет
- Другое (впишите) \_\_\_\_\_

### Часть 3. Психическое здоровье и благополучие

#### **Инструкция к вопросам 23-31.**

Эти вопросы предназначены для того, чтобы оценить состояние вашего позитивного психического здоровья, посредством восприятия своей успешности в таких важных областях, как взаимоотношения, самооценка, цель и оптимизм. Ниже приведены 8 утверждений, с которыми вы можете соглашаться или не соглашаться. Используя приведенную ниже шкалу от 1 до 7, укажите ваш ответ на каждое из утверждений.

**23. Я веду целенаправленную и осмысленную жизнь**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**24. Мои взаимоотношения с окружающими людьми приносят поддержку и удовлетворение.**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**25. Я вовлечен/а и заинтересован/а в своей повседневной деятельности**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**26. Я активно способствую счастью и благополучию других людей**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**27. Я обладаю достаточной компетентностью и способностями в важных для меня видах деятельности**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**28. Я хороший человек и живу хорошей жизнью**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**29. Я оптимистично смотрю в будущее**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**30. Люди уважают меня**

1=Категорически не согласен; 2=Не согласен; 3=Скорее не согласен; 4=Ни согласен, ни не согласен; 5=Отчасти согласен; 6=Согласен; 7=Полностью согласен

**31. Как часто за последний месяц Вы чувствовали, что возникающих трудностей накопилось так много, что Вы не можете их преодолеть?**

- Никогда
- Почти никогда
- Иногда
- Довольно часто
- Очень часто

**Вопросы 32-35:**

**В течение последних двух недель как часто вас беспокоили следующие проблемы?**

**32. Вас мало интересовали дела или ничто не доставляло удовольствие**

- Совсем нет
- В течение нескольких дней
- Более половины указанного времени
- Почти каждый день

**33. Вы испытывали чувство подавленности, депрессии или безнадежности**

- Совсем нет
- В течение нескольких дней
- Более половины указанного времени
- Почти каждый день

**34. Вы испытывали чувство нервозности, тревоги или беспокойства**

- Совсем нет
- В течение нескольких дней
- Более половины указанного времени
- Почти каждый день

**35. Неспособность остановить или контролировать беспокойство**

- Совсем нет
- В течение нескольких дней
- Более половины указанного времени
- Почти каждый день

Часть 4. Стигма и социальная поддержка

**Инструкция к вопросам 36-43**

Эти вопросы предназначены для оценки внешней и внутренней стигмы, связанной с ВИЧ-статусом. Ниже приведены 8 утверждений, с которыми вы можете соглашаться или не соглашаться. Укажите ответ для каждого утверждения.

**36. Относились ли к Вам по-другому после того, как Вы раскрыли свой ВИЧ-статус друзьям и близким**

- Да  
 Нет

**37. Вы не раскрыли свой ВИЧ-статус некоторым людям, опасаясь негативных последствий**

- Да  
 Нет

**38. Мне трудно рассказывать людям о своем ВИЧ-статусе**

- Согласен/а  
 Не согласен/а

**39. Будучи ВИЧ-позитивным, я чувствую себя грязным**

- Согласен/а  
 Не согласен/а

**40. Я чувствую себя виноватым в том, что я ВИЧ-положительный**

- Согласен/а  
 Не согласен/а

**41. Мне стыдно, что я живу с ВИЧ**

- Согласен/а  
 Не согласен/а

**42. Иногда я чувствую себя никчемным из-за того, что я ВИЧ-положительный**

- Согласен/а  
 Не согласен/а

**43. Я скрываю свой ВИЧ-статус от окружающих**

- Согласен/а  
 Не согласен/а

#### **Инструкция к вопросам 44-48**

Эти вопросы предназначены для оценки вашей эмоциональной, ценностной, материальной и информационной поддержки. Ниже приведены 4 утверждения, с которыми вы можете соглашаться или не соглашаться. Используя приведенную ниже шкалу от 0 до 4, укажите ответ для каждого утверждения.

**44. В моей жизни есть люди, которые внимательны к моим чувствам и проблемам**

0 = Категорически не согласен; 1 = Не согласен; 2 = Нейтрален; 3 = Согласен; 4 = Абсолютно согласен

**45. В моей жизни есть люди, которые ценят то, что я делаю**

0 = Категорически не согласен; 1 = Не согласен; 2 = Нейтрален; 3 = Согласен; 4 = Абсолютно согласен

**46. В моей жизни есть люди, к которым я могу обратиться за помощью, если она мне понадобится**

0 = Категорически не согласен; 1 = Не согласен; 2 = Нейтрален; 3 = Согласен; 4 = Абсолютно согласен

**47. В моей жизни есть люди, с которыми я могу поговорить о том, как справиться с трудностями**

0 = Категорически не согласен; 1 = Не согласен; 2 = Нейтрален; 3 = Согласен; 4 = Абсолютно согласен

**48. В какой из следующих областей Вы нуждаетесь в помощи? (Отметьте все, что подходит)**

- Продукты питания
- Жилье
- Транспорт
- Коммунальные услуги (тепло, электричество, вода и т.д.)
- Медицинское обслуживание, лекарства, медицинские принадлежности
- Психологическое консультирование
- Стоматологические услуги
- Услуги по улучшению зрения
- Обращение за ежемесячными государственными пособиями (для людей живущих с ВИЧ/ пособия по безработице / Адресная социальная помощь/ пособия по инвалидности и т.д)
- Дополнительная помощь в выполнении повседневных дел
- Уход за детьми/другие вопросы, связанные с детьми
- Погашение долгов/кредитов
- Юридические вопросы
- Трудоустройство
- Другое (указать) \_\_\_\_\_
- Мне не нужна помощь ни по одному из этих пунктов

Questionnaire  
(Kazakh version)

### Сауалнама

1 бөлім. Әлеуметтік-демографиялық ақпарат

**1. Өзіңіздің жынысыңызды анықтаңыз**

- Ер
- Әйел

**2. Кейбір адамдардың жыныстық сәйкестендіруі олардың туу туралы куәлігінде көрсетілгеннен ерекшеленеді. Сіз өзіңді қазір қалай сәйкестендіресіз?**

- Ер
- Әйел
- Трансгендер
- Мен өзімді әйел, ер немесе трансгендер ретінде сәйкестендірмеймін
- Жауап бермеуді жөн көремін

**3. Өзіңіздің жасыңызды анықтаңыз:**

- 18-24
- 25-34
- 35-44
- 45-54

55-64

65 немесе одан көп

**4. Ұлтыңызды анықтаңыз:**

Қазақ

Орыс

Өзбек

Басқа (жазыңыз) \_\_\_\_\_

**5. Өз білім деңгейіңізді анықтаңыз:**

Білімім жоқ

Толық емес орта

Орта

Орта-мамандындрылған білім

Жоғары білім

Басқа (нақтылаңыз) \_\_\_\_\_

**6. Сіз Қазақстанның қай аймағында тұрасыз?**

Абай облысы

Ақмола облысы

Ақтөбе облысы

Алматы облысы

Атырау облысы

Батыс Қазақстан облысы

Жамбыл облысы

Жетісу облысы

Қарағанды облысы

Қостанай облысы

Қызылорда облысы

Маңғыстау облысы

Павлодар облысы

Солтүстік Қазақстан облысы

Түркістан облысы

Ұлытау облысы

Шығыс Қазақстан облысы

Астана

Алматы

Шымкент

**7. Төменде келтірілгендердің қайсысы сіз тұратын аймақты жақсы сипаттайды?**

Қала

Қала маңы

Ауыл

Басқа (жазыңыз) \_\_\_\_\_

**8. Тұрақты қарым-қатынастасыз ба, анықтаңыз?**

Иә

Жоқ

Жауап бермеуді жөн көремін

**9. Сіздің жұмыспен қамтылу жағдайыңыз қандай?**

- Жұмыс істеймін, толық жұмыс күні
- Жұмыс істеймін, толық емес жұмыс күні
- Жұмыс істемеймін

**10. Өзіңіздің қаржылық қанағаттану деңгейіңізді таңдаңыз:**

- Қажеттіліктерді қанағаттандыру үшін жеткіліксіз
- Қажеттіліктерді қанағаттандыру үшін әрең жетеді
- Қажеттіліктерді қанағаттандыру үшін жеткілікті
- Қажеттіліктерді қанағаттандыру үшін артығымен жеткілікті

**11. Сізде қазіргі өмірлік жағдайыңыз, мысалы, тұрғын үй, қауіпсіздік және шығындар бойынша қандай да бір алаңдаушылықтар бар ма?**

- Иә
- Жоқ

2 бөлім. Денсаулықтың жалпы жағдайы туралы ақпарат

**12. Сіз АИТВ-мен бірге өмір сүргеніңізге қанша жыл болды?**

- 1 жылдан аз
- 1 жылдан астам
- 3 жылдан 5 жылға дейін
- 5 жылдан 10 жылға дейін
- 10 жылдан астам

**13. Сізде басқа да созылмалы аурулар бар ма?**

- Иә
- Жоқ
- Білмеймін

**14. Егер Сіз алдыңғы сұраққа «Иә» деп жауап берсеңіз, Сізде дәл қандай басқа созылмалы аурулар бар екенін көрсетіңіз**

- Созылмалы С гепатиті
- Созылмалы В гепатиті
- Қант диабеті
- Бронх демікпесі
- Артериялық гипертензия
- Басқа (жазыңыз) \_\_\_\_\_

**15. Сіз өзіңіздің қазіргі денсаулық жағдайыңызды қалай бағалайсыз?**

- Нашар
- Қанағаттанарлық
- Жақсы
- Өте жақсы
- Керемет

**16. Жаяу жүру, баспалдақпен көтерілу, азық-түлікке бару немесе орындықты жылжыту сияқты күнделікті физикалық іс-қимылдарды орындауға қаншалықты қабілеттісіз?**

- Мүлдем жасай алмаймын
- Шамалы дәрежеде

- Бірқалыпты дәрежеде
- Көп бөлігінде
- Толық көлемде

**17. Сіз қазіргі уақытта немесе бір кездері АИТВ-ға қарсы ем қабылдадыңыз ба (антиретровирустық (АРВ) терапия қабылдадыңыз ба)?**

- Иә
- Жоқ

**18. Қазіргі уақытта АРВ ем қабылдамауыңыздың немесе бір кездері оны тоқтатудың басты себебі неде?**

- Менде қажетті дәрі-дәрмектер қоры жоқ
- Мен дәрі-дәрмектің жанама әсерлерін көтере алмаймын
- Мен емдеу қажеттілігін сезінбеймін
- Мен туыстарымның менің емделіп жатқанымды білгенін қаламаймын.
- Менде емделуде қиындықтар жоқ
- Басқа себептер (жазыңыз) \_\_\_\_\_

**19. Соңғы 12 айда АРВ-терапияға қол жетімділіктіңізді бағалаңыз:**

- Нашар
- Қанағаттанарлық
- Жақсы
- Өте жақсы

**20. Соңғы айда Сіз антиретровирустық таблеткалардың кем дегенде бір дозасын қанша күн өткізіп алдыңыз? (0-ден 30-ға дейінгі күндер санын көрсетіңіз)**  
\_\_\_\_\_ күн

**21. Жалпы, сіздің тұрғылықты жеріңізде АИТВ-инфекциясының алдын алу орталығында медициналық қызметкерлердің терапевтік қызмет көрсетуіне қаншалықты қанағаттанасыз:**

- Үзілді-кесілді қанағаттанбаймын
- Қанағаттанбаймын
- Бейтарап
- Қанағаттанамын
- Толығымен қанағаттанамын

**22. Сіз Қазақстанда АИТВ-мен өмір сүретін адамдарға қолдау көрсететін ұйымдардың бірінде қызмет аласыз ба?**

- Иә
- Жоқ
- Басқа (жазыңыз) \_\_\_\_\_

3 бөлім. Психикалық денсаулық және әл-ауқат

**23-31 сұрақтарға арналған нұсқаулық**

Бұл сұрақтар өзара қарым-қатынас, өзін-өзі бағалау, мақсат және оптимизм сияқты маңызды салалардағы өз жетістіктеріңізді қабылдау арқылы өзіңіздің оң психикалық денсаулығыңыздың жағдайын бағалауға арналған. Төменде сіз келісуге немесе келіспеуге болатын 8 пайымдау келтірілген. Төмендегі 1-ден 7-ге дейінгі шкаланы қолдана отырып, әрбір пайымдауға өз жауабыңызды көрсетіңіз.

**23. Мен мақсатқа бағытталған және мағыналы өмір сүремін**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**24. Менің айналамдағы адамдармен өзара қарым-қатынасым қолдау мен қанағаттандыру әкеледі**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**25. Мен өзімнің күнделікті жұмысыма қатысамын және қызығушылық танытамын**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**26. Мен басқа адамдардың бақыты мен әл-ауқатына белсенді ықпал етемін**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**27. Мен өзім үшін маңызды қызмет түрлерінде жеткілікті құзыреттілік пен қабілеттерді иеленемін**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**28. Мен жақсы адаммын және жақсы өмір сүремін**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**29. Мен болашаққа оптимистік көзқараспен қараймын**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**30. Адамдар мені құрметтейді**

1 = Үзілді-кесілді келіспеймін; 2 = Келіспеймін; 3 = Көбіне келіспеймін; 4 = Келісемін де, келіспеймін де; 5 = Ішінара келісемін; 6 = Келісемін; 7 = Толығымен келісемін

**31. Соңғы бір айда туындаған қиындықтардың соншалықты көп жиналып, оларды жеңе алмайтындайдығыңызды қаншалықты жиі сездіңіз?**

- Ешқашан
- Ешқашан дерлік
- Кейде
- Айтарлықтай жиі
- Өте жиі

**32-35 сұрақтар:**

**Соңғы екі апта ішінде келесі мәселелер сізді қаншалықты жиі мазалайды?**

**32. Істер сізді аз қызықтырды немесе ешнәрсе қанағаттандырған жоқ**

- Мүлдем жоқ
- Бірнеше күн ішінде
- Көрсетілген уақыттың жартысынан көбі
- Күн сайын дерлік

**33. Жабырқау, депрессия немесе үмітсіздік сезімін сездіңіз**

- Мүлдем жоқ

- Бірнеше күн ішінде
- Көрсетілген уақыттың жартысынан көбі
- Күн сайын дерлік

**34. Күйгелектік, үрейлену немесе мазасыздану сезімін сезіндіңіз**

- Мүлдем жоқ
- Бірнеше күн ішінде
- Көрсетілген уақыттың жартысынан көбі
- Күн сайын дерлік

**35. Мазасыздықты тоқтата алмау немесе бақылай алмау**

- Мүлдем жоқ
- Бірнеше күн ішінде
- Көрсетілген уақыттың жартысынан көбі
- Күн сайын дерлік

4 бөлім. Стигма және әлеуметтік қолдау

**36-43 сұрақтарға арналған нұсқаулық**

Бұл сұрақтар АИТВ-мәртебесімен байланысты сыртқы және ішкі стигманы бағалауға арналған. Төменде сіз келісуге немесе келіспеуге болатын 8 пайымдау келтірілген. Әр пайымдауға арналған жауапты көрсетіңіз.

**36. Достарыңыз бен жақындарыңызға өзіңіздің АИТВ-мәртебеңізді ашқаннан кейін Сізге басқаша қарады ма**

- Иә
- Жоқ

**37. Сіз жағымсыз салдардан қорқып, кейбір адамдарға өзіңіздің АИТВ-мәртебеңізді ашқан жоқсыз**

- Иә
- Жоқ

**38. Маған адамдарға өзімнің АИТВ-мәртебем туралы айту қиын**

- Келісемін
- Келіспеймін

**39. АИТВ-позитивті адам бола отырып, мен өзімді лас сезінемін**

- Келісемін
- Келіспеймін

**40. Мен АИТВ -оң болғанымға өзімді кінәлі сезінемін**

- Келісемін
- Келіспеймін

**41. Мен АИТВ-мен өмір сүретініме ұяламын**

- Келісемін
- Келіспеймін

**42. Кейде мен АИТВ-оң болғандықтан өзімді түкке тұрғысыз сезінемін**

- Келісемін
- Келіспеймін

**43. Мен өзімнің АИТВ-мәртебемді айналаманнан жасырамын**

- Келісемін
- Келіспеймін

**44-48 сұрақтарға арналған нұсқаулық**

Бұл сұрақтар сіздің эмоционалды, құндылық, материалдық және ақпараттық қолдауыңызды бағалауға арналған. Төменде сіз келісе алатын немесе келіспейтін 4 пайымдау келтірілген. Төмендегі 0-ден 4-ке дейінгі шкаланы пайдаланып, әр пайымдауға арналған жауапты көрсетіңіз.

**44. Менің өмірімде менің сезімдерім мен мәселелеріме мұқият қарайтын адамдар бар**

0 = Үзілді-кесілді келіспеймін; 1 = Келіспеймін; 2 = Бейтарап; 3 = Келісемін; 4 = Толығымен келісемін

**45. Менің өмірімде менің не істеп жатқанымды бағалайтын адамдар бар**

0 = Үзілді-кесілді келіспеймін; 1 = Келіспеймін; 2 = Бейтарап; 3 = Келісемін; 4 = Толығымен келісемін

**46. Менің өмірімде маған қажет болса, көмек сұрай алатын адамдар бар**

0 = Үзілді-кесілді келіспеймін; 1 = Келіспеймін; 2 = Бейтарап; 3 = Келісемін; 4 = Толығымен келісемін

**47. Менің өмірімде қиындықтарды қалай жеңуге болатыны туралы сөйлесе алатын адамдар бар**

0 = Үзілді-кесілді келіспеймін; 1 = Келіспеймін; 2 = Бейтарап; 3 = Келісемін; 4 = Толығымен келісемін

**48. Келесі салалардың қайсысында Сіз көмекке мұқтажсыз? (Сәйкес келетіннің барлығын белгілеңіз)**

- Азық-түлік өнімдері
- Тұрғын үй
- Көлік
- Коммуналдық қызметтер (жылу, электр қуаты, су және т. б.)
- Медициналық қызмет көрсету, дәрі-дәрмектер, медициналық керек-жарақтар
- Психологиялық кеңес беру
- Стоматологиялық қызметтер
- Көру қабілетін жақсарту бойынша қызметтер
- Ай сайынғы мемлекеттік жәрдемақыларға жүгіну (АИТВ-мен өмір сүретін адамдар үшін/ жұмыссыздық бойынша жәрдемақы / атаулы әлеуметтік көмек / мүгедектік бойынша жәрдемақы және т. б.)
- Күнделікті істерді орындауда қосымша көмек
- Бала күтімі / балалармен байланысты басқа мәселелер
- Қарыздарды/кредиттерді өтеу
- Құқықтық мәселелер
- Жұмысқа орналастыру
- Басқа (көрсету) \_\_\_\_\_
- Маған осы тармақтардың ешқайсысы бойынша көмек қажет емес